

## **REMARKS**

### **Discussion of the Claim Amendments**

Claims 1-16 have been canceled without prejudice in favor of claims 17-27.

Claims 17-27 are directed to a nucleic acid analyzer. Essentially the whole specification describes a nucleic acid analyzer. Figures 3A and 3B illustrate certain embodiments of the nucleic acid analyzers described by the specification.

Claim 17 recites first and second conductors and a circuit for applying a voltage across the conductors. Support for this amendment can be found, inter alia, in Figure 34, wherein elements 93A and 93 B depict first and second conductors, and item number 82 is a circuit for applying a voltage across these conductors.

Claim 18 recites that the conductors are introduced into the sample. Support for this amendment can be found, inter alia, at page 2, lines 14-15.

Claim 19 recites that the conductors are located adjacent to the sample. Support for this claim amendment can be found, inter alia, at page 3, lines 1-3.

Claim 20 recites that an apparatus for receiving multiple samples, which is described in the specification at, inter alia, at page 9, line 29 to page 10, line 6, and at page 14, lines 3-6.

Claim 21 recites a thermal regulation device, which is described in the specification at, inter alia, at page 12, lines 1-2.

Claim 22 recites a transport system, which is described in the specification at, inter alia, page 14, lines 20-29.

Claim 23-26 recite various features of the circuit. These features are all readily visible in Figure 34, and are further described in the text describing Figure 34.

Claim 27 recites that one of the conductors can be a pipettor, which is described in the specification at, inter alia, page 55, lines 26-28.

Accordingly, no new matter is added by way of the present Amendment.

#### Discussion of the § 112 Rejection

The pending claims stood rejected under Section 112, first paragraph. While applicants vigorously traverse the rejection as applied to the pending claims, applicants believe that the enablement rejection clearly cannot be applied to the claimed invention as defined by the currently pending claims.

#### Discussion of the § 102 rejection in view of Hoefer

Formerly pending claims 1, 12, and 13 stood rejected as allegedly being anticipated by Hoefer et al. (WO 87/00635). The Hoefer reference discloses an electrophoretic device which is not believed to be capable of amplifying nucleic acids. In contrast, the nucleic acid analyzer defined by the pending claims is capable of amplifying nucleic acids.

Moreover, the device disclosed by the Hoefer reference appears to be intended for a significantly different purpose than the analyzer defined by the currently pending claims. Accordingly, the Hoefer reference does not appear to teach or reasonably suggest the invention defined by the pending claims.

#### Discussion of the § 102 rejection in view of Northrup

Claims 1, 4, 12-14, and 16 stood rejected for allegedly being anticipated by Northrup et al. (WO 99/47255). The Northrup reference appears to disclose a unitary device which uses electrodes to drive nucleic acids through the devices. As such, the Northrup

reference fails to teach the claim limitation of claim 17 specifying use of a container which is separate from other solid structures of the analyzer and which is used to hold and amplify the sample. Moreover, it is unclear to applicants how the device described by the Northrup reference could be modified to include such a container, especially since the use of a unitary device appears to be a primary feature of the device described by the Northrup reference. Accordingly the Northrup reference does not disclose, or reasonably suggest the invention defined by the pending claims.

#### Discussion of the obviousness rejection

The Office Action alleged that the invention defined by claims 1, 4, and 16 would have been obvious at the time of the present invention as evidenced by the combination of the Northrup reference and Zander et al. Applicants are unsure of which reference is referred to by "Zander et al.". Nonetheless, the Office Action cites Zander et al. only for the purposes of showing that the use of magnetic microparticles to immobilize or capture polynucleotides was allegedly known in the prior art to the present application. Since the applicants arguments regarding the novelty and non-obviousness of the present invention are not premised on the use magnetic microparticles, a discussion of Zander et al. does not appear to be necessary. If, however, the Patent Office disagrees, applicants respectfully request clarification of which reference is meant by "Zander et al.".

Conclusion

In view of the aforementioned arguments, Applicants respectfully request the issuance of a Notice of Allowability.

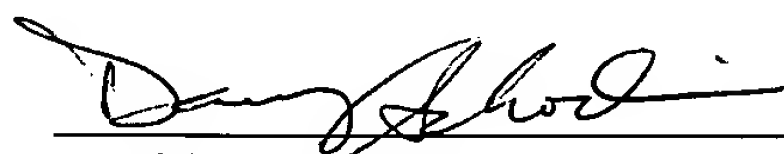
Authorization to Charge Fees

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Respectfully submitted,  
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